

(a) Drawings Objection

The Examiner objected to the drawings because the speech signal recognizer and the speech signal interpreter as claimed in claim 19 were not shown in the drawings. The Applicant herein submits corrected Fig. 2 showing these features in the drawing. The Applicant believes that no new matter has been added since these features were disclosed in claim 19 of the original disclosure. However, the specification has been amended herein in order to conform the specification to the drawings.

(b) Engellenner and Baker et al. Rejection

Claims 11 through 13, 19 and 26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Engellenner (U.S. Patent No. 5,786,764) in view of Baker et al. (U.S. Patent No. 4,786,764). The Examiner stated that regarding claim 11 section (a), Figure 13 of Engellenner displays a support structure for physically supporting the system as claimed. Regarding claim 11 (b), he stated that the speech recognizer of Engellenner is the claimed speech recognition digital signal processor of the present invention.

Regarding claim 11 (c), the Examiner stated that Engellenner teaches software-driven speech recognition that

is microprocessor-based controlled. He asserted that these two components are the programmable microprocessor of the present invention.

Regarding claim 11 (d), the Examiner continued that the Engellenner discloses microprocessors providing voice recognition and that an item location is provided by either a video display or a speaker.

Regarding claim 11 (e), the Examiner stated that Engellenner teaches the use of a microphone. He concluded that the microphone of Engellenner is the claimed voice input means of the present invention.

Regarding claim 11 (f), the Examiner stated that Engellenner teaches successive frames of inquiries, which are the claimed operational inputs of the present invention. Moreover, the Examiner asserted that Engellenner teaches other instructions stored in memory, which are the claimed control inputs of the present invention. He continued that Engellenner fails to teach memory storage means for voice recognition vocabulary for storage of command match. However, he postulated that Baker et al could be used for having memory for storing voice recognition vocabulary of command match.

Regarding claim 11 (g), the Examiner asserted that the Engellenner teaches a video display or synthetic speech generator, or a combination of both for confirming (reads on

claimed feedback in response to the search request, claimed item location query).

The Examiner concluded that it would have been obvious to one skilled in the art at the time the invention was made to modify Engellenner to have the memory storage means for voice recognition for storage of command match as taught by Baker et al such that the modified system of Engellenner would be able to support the memory for storing voice recognition vocabularies to be used by the voice recognition to the system users.

Regarding claim 12, the Examiner stated that Engellenner teaches acknowledging search requests by displaying words (claimed "text"). Regarding claim 13, he stated that Engellenner teaches video display (reads on claimed "sufficient hardware and software") for confirming search requests (claimed "recognizable voice input"). Regarding claim 15, the Examiner stated that Engellenner teaches a microphone for voice input.

Regarding claim 19, the Examiner stated that Engellenner teaches a speech processing means (claimed "speech signal recognizer") and a likelihood processor (claimed "speech signal interpreter").

Regarding claim 26, the Examiner stated that Engellenner teaches a built-in (a wire-connected) microphone.

In response, the Applicant submits that the combination of Engellenner and Baker et al. fails to establish a prima facie showing of obviousness for the following reasons. First, the Engellenner reference supports a different system than the present invention. Second, the Engellenner disclosure teaches away from the present invention. And third, even if the combination were valid, the combination of the teachings of the two inventions would produce an object, which is different from the present invention.

First, the Engellenner reference supports a different system than the present invention. The Engellenner art is directed to a voice activated electronic locating system. The items that are to be located are tagged and when an item is to be located a coded interrogation signal is transmitted to one or more interrogation regions in which the signal triggers a response for the item tag. A detector within the regions senses a response from the tag signal and the location of the item is reported based on the detector's signal. Under the Engellenner system, individual regions must be entered to be polled.

On the other hand, the present invention includes a database of manager inputs of item and location, as now recited in newly presented claim 31. When a user desires to find a location of an item, the desired item is spoken into

the voice input means and the system retrieves the location associated with that item from the manager input item location database. This is different from sensing a signal from a tag on an item. Therefore, the Engellenner patent supports a different system from the present invention and should be removed as a reference.

Second, the Engellenner disclosure teaches away from the present invention. In querying item location in Engellenner, individual regions must be entered to be polled in the interrogation of a signal in order to obtain the most current location of an item. Thus, region must be an element of the Engellenner database. In contrast to this, the present invention associates an item only with a location. Since the Engellenner disclosure requires regions, the hierarchical structure of item-location of the present invention would be taught away from if Engellenner was modified to be the present invention.

Third, even if the combination were valid, the combination of the teachings of the two inventions, nevertheless, would produce a system, which is different from the present invention. The Engellenner disclosure teaches determination of item location through a signal on a tag on an item. No such tags are needed in the present invention, which access locations form an item-locator database. Therefore, the combination of Engellenner and

Baker et al. would produce a system, which is different from the present invention.

And fourth, the combination with Baker et al. fails to establish a prima facie showing of obviousness because of lack of motivation. Since the Engellenner patent discloses a speech recognition system in detail, there is no need for Engellenner to utilize the speech recognition system of Baker et al.

(c) Engellenner, Baker et al.
and Perrone et al. Rejection

Regarding claim 14, the Examiner stated that Engellenner fails to teach "memory storage... system programming". He stated that it is known to one skilled in the art that bootstrap instructions include diagnostics and system programming. He asserted that it would have been obvious to one skilled at the time the invention was made to modify Engellenner to have the "memory storage...system programming" as taught by Perrone et al. (U.S. Patent No. 6,092,045) such that the modified system of Engellenner would be able to support the ROM, diagnostic and system programming to the system users.

Regarding claim 20, the Examiner stated that Perrone et al. teach that the control software receives a spoken utterance to recognize a resource identifier in the utterance. He concluded that the software must be embedded

(on system memory). He asserted that this teaching reads on the claimed voice driven interface and claimed operational instructions. Furthermore, Perrone et al. also teach showing the locations of that class of rooms, which he maintained, is the locator function of the present invention. Moreover, he stated that Perrone et al. also teach various claimed options and establishes data communication channel and establish voice communication channel, which he asserted are the default functions of the present invention.

In response, the Applicant reasserts all the arguments in section (b) above in reference to the combination of Engellenner and Baker et al., and also submits that the additional combination with Perrone et al. fails to establish a prima facie showing of obviousness for the following reasons. First, Perrone et al. do not overcome the limitations of the base references to Engellenner and Baker et al. And second, there is no motivation to combine the art of Engellenner and Perrone et al.

First, Perrone et al. do not overcome the limitations of the base references to Engellenner and Baker et al. As discussed in section (b) herein above, both Engellenner and Baker et al. fail to teach selection of location for an item from an item location database. Likewise Perrone et al.

also fails to teach this feature.

The Perrone et al. art is directed to voice control of a server for ordering products through the Internet where virtual presentation occurs. The types of products that are classified are retrieved in broad categories. For example, in response to a request for a class of rooms, all rooms having a given rate are diagrammed (col. 19, lines 33 -35). The disclosure has no way of finding the location of a given room. Moreover, there is a many to one ratio of what is located for a specific inquiry.

On the other hand, the present invention is directed to the location of specific consumer products. As stated in the specification, "(b)y item is meant a place or thing that a user desires to locate" page 30, lines 1-2. This is different from a class of items, wherein Webster's Ninth Collegiate Dictionary defines class as "a group, set, or kind sharing common attributes." Thus, the Perrone et al. disclosure involves broad classifications that do not show the location of a specific person or product, much less a consumer product. Therefore, the Perrone et al. patent does not overcome the limitations of the underlying prior art in determining obviousness of the present invention.

And second, there is no motivation to combine the art of Engellenner and Perrone et al. Engellenner relates to tagged items whose location is identified by a signal

received a regions. Each item must be interrogated by region and/or regions. On the other hand, Perrone et al. relate to retrieval from a broad database of classifications. The Applicant respectfully submits that there would no need expressed or implied to modify the electronic locating system of Engellenner to include retrieval of information from a broad classified database as taught in Perrone et al.

(d) Engellenner, Baker et al.
and Semple et al. Rejection

Regarding claim 16, the Examiner stated that Engellenner teaches a keyboard or touch sensitive mechanisms, which he concluded, is the secured manual control panel of the present invention. Moreover, he stated that Engellenner teaches management of item and locations data, but fails to teach "input.....location data." He further stated that Semple et al. teach that item location data are input to a database via a keyboard. He concluded that it would have been obvious to one skilled at the time the invention was made to modify Engellenner and Baker et al. to have the "input.....location data" as taught by Semple et al. (U.S. Patent No. 6,408,307) such that the modified system of Engellenner would be able to support the input of location data to the system users.

In response, the Applicant reasserts all the arguments in section (b) above in reference to the combination of Engellenner and Baker et al., and also submits that the additional combination with Semple et al. fails to establish a prima facie showing of obviousness for the following reasons. First, the Semple et al. disclosure necessitates a different database structure from the present invention. And second, there is no motivation to combine the art of Engellenner and Semple et al.

First, the Semple et al. disclosure necessitates a different database structure from the present invention. The Semple et al. art is directed to items of interest that include positional coordinates, a geographic vicinity and at least one associated category. In use, one selects a country and then a vicinity such as a city and state, or an area of interest within a vicinity such as an airport, and then a predefined category of interest. (See Figures 3, 3A, 3B and 4). It is only after going through the hierarchy of the database that a user can find details on a given item. There is nothing in the disclosure that enables one to find the location of a given item on just the input of an item.

Moreover, there is a many to one ratio on what items are located for a given inquiry. For example, the selection of the category of music stores within a geographic vicinity

may provide more than one item of music store for retrieval. The system has no way of finding the location of a specific music store or item without processing through the hierarchy of country, city, place of interest, category and items of interest.

In contrast to this, the present invention is directed to the specific location of an item. As stated in the specification, "(b) y item is meant a place or thing that a user desires to locate" page 30, lines 1-2. The Semple et al. disclosure involves broad classifications that do not show the location of a given specific person or product, much less a consumer product. Therefore, the Semple et al. patent supports a different database structure from the present invention.

And second, there is no motivation to combine the art of Engellenner and Semple et al. Engellenner relates to tagged items whose location is identified by a signal received from a region and/or regions. Each item must be interrogated by region and/or regions. On the other hand, Semple et al. relate to retrieval from a broad database of classifications that are hierarchically displayed on successive monitor screens whereby the desired item of interest is eventually retrieved. The Applicant respectfully submits that there would no need expressed or implied to modify the electronic locating system of

Engellenner to include retrieval of information from successive selection from broadly classified hierarchical databases as taught in Semple et al.

(e) Engellenner, Baker et al., Semple et al. and Wortham Rejection

Regarding claim 17, the Examiner stated that the previous rejections apply except that Engellenner, Baker et al. and Semple et al. fail to teach "a keyboard and menu for operation and programming". However, he continued, that Wortham teaches an apparatus for locating vehicles (reads on claimed "item locator") and keyboard and menu for programming. He concluded that it would have been obvious to one skilled at the time the invention was made to modify Engellenner, Baker et al. and Semple et al. to have the "a microphone, a screen for input and feedback display" as taught by Wortham (U.S. Patent No. 5,884,221) such that the modified system would be able to support the keypad and menu to the system users.

In response, the Applicant reasserts all the arguments in section (d) above in reference to the combination of Engellenner, Baker et al. and Semple et al., and also submits that the additional combination with Wortham fails to establish a prima facie showing of obviousness because

Wortham does not overcome the problem with the underlying prior art. Like Engellenner, Wortham also discloses retrieving location signals from a regional cellular telephone transmitter site. None of the references disclose determining location from an item locator database that is created from manager inputs. Thus, the Applicant respectfully submits that the Wortham patent should be removed as a reference.

(f) Engellenner, Baker et al. and
Martin Rejection

Regarding claim 18, the Examiner stated that Engellenner and Baker et al. as applied to claim 11 above teaches all of the features in claim 18 with the exception of digital to analog conversion. However, he stated, that Martin (U.S. Patent No. 5,991,712) teaches a speech recognition system with adapter for digital to analog conversion and audio speaker. He concluded that it would have been obvious to one skilled at the time the invention was made to modify Engellenner and Baker et al. to have the digital to analog conversion as taught by Martin.

In response, the Applicant reasserts all the arguments in section (b) above in reference to the combination of Engellenner and Baker et al., and also submits that the additional combination with Martin et al. fails to establish a prima facie showing of obviousness because of lack of

motivation. Since the Engellenner patent discloses a speech recognition system in detail there is no need for Engellenner to utilize the speech recognition system of Martin et al.

(g) Engellenner, Baker et al. and
Cohen et al. Rejection

Regarding claims 21 through 23, the Examiner rejected the claims as being unpatentable over Engellenner and Baker et al. as applied to claim 11 above, and in view of Cohen et al. (6,507,352). He stated that Engellenner in view of Baker et al. failed to teach providing an item aisle and shelf location. He stated that Cohen et al. teaches aisle number and shelf location being displayed on the display monitor. He determined that it would have been obvious to one skilled in the art at the time the invention was made to modify Engellenner and Baker et al. to provide aisle location as taught by Cohen et al. such that the modified system of Engellenner and Baker et al. would be able to support the aisle and shelf locations to system users.

In response, the Applicant reasserts all the arguments in section (b) above in reference to the combination of Engellenner and Baker et al., and also submits that the additional combination with Cohen et al. fails to establish a prima facie showing of obviousness for the following

reasons. First, the Cohen et al. patent teaches away from the present invention. And second, there is no motivation to combine the art of Engellenner and Cohen.

First, the Cohen et al. patent teaches away from the present invention. While auditory output is taught in Cohen et al., auditory input is not taught, nor would be possible. The nature of the transaction with the main database in the Cohen et al. disclosure is a selection from numerous data sources, which is displayed on computer monitors. The nature of the selections is such that it would be extremely difficult for a user to remember all the selections, which could be made audibly, if it were part of the invention. Thus, Cohen et al. teaches away from auditory presentation of output of the present invention.

And second, there is no suggestion, teaching or need, expressed or implied, in either the Engellenner patent or the Cohen et al. patent to utilize the teachings of the other. The Engellenner disclosure is directed to locating items from tag signals in inputted regions. The Cohen et al. patent is directed toward displaying retrieved database information on monitors, wherein a user selects from numerous displays of information one desires. The Cohen et al. patent displays information by department while the Engellenner patent polls information in a given region(s). Since Engellenner is a broad structure, there would be no

motivation to use the system of retail department databases of the Cohen et al. patent, and vice versa. The Applicant submits that one skilled in the art of tagged items locators would not turn to the art of detailed retail department databases for information on how to report data.

(h) Engellenner, Baker et al.
and Reed Rejection

Regarding claim 24, the Examiner rejected the claims as being unpatentable over Engellenner and Baker et al. as applied to claim 11 above, and in view of Reed (6,394,278). He stated that Engellenner in view of Baker et al. failed to teach providing an item bin number. He stated that Reed teaches bin number being displayed on the display screen. He determined that it would have been obvious to one skilled in the art at the time the invention was made to modify Engellenner and Baker et al. to provide bin number as taught by Reed such that the modified system of Engellenner and Baker et al. would be able to support the bin number to the system users.

In response, the Applicant reasserts all the arguments in section (b) above in reference to the combination of Engellenner and Baker et al., and also submits that the additional combination with Reed fails to establish a prima

facie showing of obviousness because there is no motivation to combine the art of Engellenner and Reed.

There is no suggestion, teaching or need, expressed or implied, in either the Engellenner patent or the Reed patent to utilize the teachings of the other. The Engellenner disclosure is directed to locating tagged items through signals from the tags that are queried by region in order to retrieve the most current location. The Reed patent is directed toward transmitting destination information of addressee on postal letters and parcels. The Reed patent reports information by addressee bin number from an addresses-bin number database while the Engellenner patent reports information from tag signals in a query including location region. Since Engellenner has the structure of region, there would be no motivation to use the system of a postal address-bin database of the Reed system, and vice versa. The Applicant submits that one skilled in the art of general classification databases would not turn to the art of detailed postal addressee databases for information on how to locate desired information.

(i) Engellenner, Baker et al.
and Radican Rejection

Regarding claim 25, the Examiner rejected the claims as being unpatentable over Engellenner and Baker et al. as applied to claim 11 above, and in view of Radican (6,148,291). He stated that Engellenner in view of Baker et al. fail to teach providing an item row and slot location. He stated that Radican teaches row and slot designation being displayed. He determined that it would have been obvious to one skilled in the art at the time the invention was made to modify Engellenner and Baker et al. to provide row and slot location as taught by Radican such that the modified system of Engellenner and Baker et al. would be able to support the row and slot location to the system users.

In response, the Applicant reasserts all the arguments in section (b) above in reference to the combination of Engellenner and Baker et al., and also submits that the additional combination with Radican fails to establish a prima facie showing of obviousness because there is no motivation to combine the art of Engellenner and Radican.

There is no suggestion, teaching or need, expressed or implied, in either the Engellenner patent or the Radican

patent to utilize the teachings of the other. The Engellenner disclosure is directed to locating tagged items by a signal in which a location region is part of the query. The Radican disclosure is directed toward locating individual inventory movement throughout a factory and/or factories, wherein there are visual reports displayed on computer monitors. Since the Engellenner patent includes a region(s) tracking structure, there would be no motivation to use the system of an inventory tracking database of the Radican system, and vice versa. The Applicant respectfully submits that one skilled in the art of region(s) query databases would not turn to the art of specific inventory location databases for information on how to locate desired information.

(j) Engellenner, Baker et al. and
Bandara et al. Rejection

Regarding claim 27, the Examiner stated that Engellenner and Baker et al. fail to teach "support structure". However, he continued that Bandara et al. (U.S. Patent No. 5,899,973) teach speech recognition system on a portable computer. He concluded that it would have been obvious to one skilled at the time the invention was made to modify Engellenner and Baker et al. to have the "support structure as a portable support structure as taught by

Bandara.

In response, the Applicant reasserts all the arguments in section (b) above in reference to the combination of Engellenner and Baker et al., and also submits that the additional combination with Bandara et al. fails to establish a prima facie showing of obviousness because of lack of motivation. Since the Engellenner patent discloses a speech recognition system in detail, there is no need for Engellenner to utilize the speech recognition system of Bandara et al.

(k) Engellenner, Baker et al. and
Gupta et al. Rejection

Regarding claims 28 through 30, the Examiner stated that the modified system of Engellenner in view of Baker et al. as stated in claim 11 failed to teach speech recognition engine using HMMs for its continuous speech recognition engine. He asserted that Gupta et al. (U.S. Patent No. 5,390,278) teach a speech recognition system using Hidden Markov Models. He concluded maintained that it would have been obvious to one skilled in the art at the time the invention was made to modify Engellenner and Baker et al. to have the speech recognition using HMMs for its continuous speech recognition engine as taught by Gupta so that the modified system would be able to support HMMs to system

users.

In response, In response, the Applicant reasserts all the arguments in section (b) above in reference to the combination of Engellenner and Baker et al., and also submits that the additional combination with Gupta et al. fails to establish a prima facie showing of obviousness because of lack of motivation. Since the Engellenner patent discloses a speech recognition system in detail, there is no need for Engellenner to utilize the speech recognition system of Gupta et al.

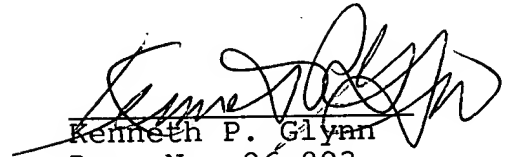
CONCLUSION

In view of the above amendment, remarks, and replacement drawing, the Applicant believes the newly presented Claims 31 through 50 are allowable because none of the combinations of prior art cited by the Examiner under 35 U.S.C. §103(a) are rendered obvious. Therefore, it is respectfully urged that the current rejections be withdrawn and that the claims be allowed. An early and favorable reply is hereby solicited.

Thank you.

Respectfully submitted,

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